

(iii) leading away the plastic strip between an opened contact roll and the substrate until

D2 the plastic strip production is underway and stabilized;

(iv) bringing the plastic strip and the substrate up to speed and heating the substrate to a temperature at or above the softening temperature of the part of the plastic strip facing the substrate;

(v) pressing the plastic strip onto the substrate by closing the contact roll and where applicable breaking off the plastic strip and stopping the plastic strip being led away, while the substrate and the cooling roll are connected by the plastic strip; and

(vi) coating the substrate with the plastic strip;

while performing on the plastic strip as the plastic strip travels between the cooling roll and the contact roll at least one of monitoring thickness of the plastic strip, monitoring color of the plastic strip, monitoring strip tension and trimming width of the plastic strip.

2. (Twice Amended) The method in accordance with Claim 1, wherein after the plastic strip has been applied an extra heat treatment stage follows to improve adhesion.

3. (Twice Amended) An apparatus for strip-coating a metallic strip-shaped substrate with a strip of plastic in accordance with claim 1, comprising in combination:

means of conveying the metallic strip-shaped substrate;

a contact roll for pressing the plastic strip onto the substrate;

means of producing the plastic strip comprising means of casting for casting the plastic;

a cooling roll for the formation of a plastic strip;

means of feeding and guiding for bringing the plastic strip to the substrate via the contact roll and for leading away the plastic strip between an open said contact roll and the substrate until the plastic strip production is underway and stabilized;

wherein the contact roll is moveable to a first position apart from the substrate wherein the contact roll is suitably arranged to co-operate with a means of conveying off the plastic strip and to a second position relative to the substrate wherein the contact roll is suitable to press the plastic strip onto the substrate.

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D<sup>2</sup> 4. (Twice Amended) The apparatus in accordance with Claim 3, wherein the contact roll is rubber at least on a surface with which it comes into contact with the plastic band.

5. (Twice Amended) The apparatus in accordance with Claim 3, wherein the means of conveying substrate, the contact roll, the means of casting, the cooling roll and the means of feeding and guiding are essentially duplicated, one set on each side of where the substrate is situated during operation for simultaneously two-sided coating the metallic strip shaped substrate.

6. (Twice Amended) The apparatus in accordance with Claim 4, wherein the means of conveying substrate, the contact roll, the means of casting, the cooling roll and the means of feeding and guiding are essentially duplicated, one set on each side of where the substrate is situated during operation for simultaneously two-sided coating the substrate.

7. (Amended) The method of Claim 1, wherein the cooling roll is internally water-cooled.

8. (Amended) The method of Claim 1, further comprising incorporating adhesion-promoting molecules into the plastic strip, wherein the coating speed is high enough that the adhesion-promoting molecules must be capable of migrating to the surface of the plastic strip within about one second after the plastic strip contacts the substrate.

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Please add new claims as follows.

D<sup>3</sup> 9. The method of Claim 1, wherein the metallic strip has a first side and a second side opposed to the first side and the first side of the metallic strip shaped substrate is coated with said strip of plastic and simultaneously the second side of the metallic strip shaped substrate is coated with a second strip of plastic, wherein said strip-coating of said second side of said metallic strip-shaped substrate with said second strip of plastic comprising the successive stages of:

- (i) plastic strip production comprising in-situ casting of said second plastic strip;
- (ii) leading the second plastic strip around a second cooling roll;
- (iii) leading away the second plastic strip between an opened second contact roll and the substrate until the second plastic strip production is underway and stabilized;

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~~(iv) bringing the second plastic strip and the substrate up to speed and heating the~~

D3 substrate to a temperature at or above the softening temperature of the part of the second plastic strip facing the substrate;

(v) pressing the second plastic strip onto the substrate by closing the second contact roll and where applicable breaking off the second plastic strip and stopping the second plastic strip being led away, while the substrate and the second cooling roll are connected by the second plastic strip; and

(vi) coating the substrate with the second plastic strip;

while performing on the second plastic strip as the second plastic strip travels between second cooling roll and second contact roll at least one of monitoring thickness of the second plastic strip, monitoring color of the second plastic strip, monitoring strip tension and trimming width of the second plastic strip.

10. The method of Claim 1, further comprising stretching the plastic strip at a temperature above the glass transition temperature of the plastic strip.

11. The method of Claim 1, further comprising uniaxially stretching the plastic strip at most 400% at a temperature above the glass transition temperature of the plastic strip.

12. The method of Claim 1, wherein the metallic strip shaped substrate travels along a single straight line from the heating means to a furnace downstream of the contact roll.

13. The method of Claim 1, wherein the metallic strip shaped substrate is straight immediately before, during and immediately after coating.

14. The method of Claim 1, wherein the metallic strip shaped substrate is straight during coating.

15. The apparatus of Claim 3, further comprising a furnace downstream of the contact roll, wherein the heating means, contact roll and furnace are arranged such that the metallic strip shaped substrate travels along a single straight line from the heating means to the furnace downstream of the contact roll.

D<sup>3</sup> 16. ~~The apparatus of Claim 3, wherein the heating means and contact roll are arranged~~  
such that the metallic strip shaped substrate is straight immediately before, during and  
immediately after coating.

17. The apparatus of Claim 3, wherein the heating means and contact roll are arranged  
such that the metallic strip shaped substrate is straight during coating.

18. The method of Claim 1, wherein in step (iv) the substrate is heated to a  
temperature above the softening temperature of the part of the plastic strip facing the substrate.

19. The method of Claim 1, wherein in step (iv) the substrate is heated to a  
temperature in the range from 200 to 230°C.

20. The method of Claim 9, wherein in step (iv) the substrate is heated to a  
temperature in the range from 200 to 230°C.

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